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09/615,430	07/13/2000	Luc Wuidart	S1022/8393	3359

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EXAMINER

LY, NGHI H

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/615,430

Applicant(s)

WUIDART ET AL.

Examiner

Nghi H. Ly

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-14 and 16-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4,6-9,12,13 and 23-32 is/are allowed.
- 6) ☒ Claim(s) 10,11,14 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 21,22,33 and 34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. Regarding claims 14 and 17, the phrase "such that" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
2. Claims 10 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 is indefinite because it is not clear as to what are being claimed (claim 10 depends on claims 1 and 9).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being obvious over DeMichele (US 5,084,699) and further in view of Burdick et al (US 6,424,820) and Schneider et al (US 6,356,738).

Regarding claim 14, DeMichele teaches a transponder (see fig.6) comprising: an oscillating circuit adapted to be excited by an external electromagnetic field when the transponder enters the electromagnetic field (see column 8, lines 28-41), the oscillating circuit including an inductance (see column 8, lines 28-41 and column 9, lines 9-11) and wherein a stray capacitance of the inductance acts as a capacitive element for the oscillating circuit (also see column 9, lines 9-11).

DeMichele does not specifically disclose a coupling coefficient between the transponder and a read/write terminal that generates the electromagnetic field rapidly decreases when a distance separating the transponder from the read/write terminal becomes greater than the particular distance.

Burdick teaches a coupling coefficient between the transponder and a read/write terminal that generates the electromagnetic field rapidly decreases when a distance separating the transponder from the read/write terminal becomes greater than the

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particular distance (see Burdick, column 6, lines 12-21, in Burdick, "1-3 meters" reads on Applicant's "particular distance").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Burdick into the system of DeMichele so that user can be accommodated in a small physical area without interference (see Burdick, column 6, lines 14-15).

The combination of DeMichele and Burdick does not specifically disclose components of the oscillating circuit are sized based on a particular distance.

Schneider teaches components of the oscillating circuit are sized based on a particular distance (see column 3, lines 55-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Schneider into the system of DeMichele and Burdick in order to provide a contact-less card smart card system in which a transponder communicates using a defined protocol (see Schneider, column 2, lines 48-50).

Regarding claim 16, the combination of DeMichele, Burdick and Schneider teaches particular distance corresponds to approximately 1-3 meters (see Burdick, column 6 lines 15-21). The combination of DeMichele, Burdick and Schneider does not specifically disclose the particular distance corresponds to approximately 1 centimeter. However, such distance range would have been obvious since the particular distance range could have been determined by the inventors' needs e.g., use a distance range which can minimize the interference with other users.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of DeMichele, Burdick and Schneider as claimed, in order to provide another way of implementing the transponder.

6. Claims 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being obvious over the Applicant's admitted prior art in view of Burdick et al (US 6,424,820) and further in view of Schneider et al (US 6,356,738).

Regarding claim 17, the Applicant's admitted prior art teaches a system for data transfer comprising: a terminal including a series oscillating circuit having a first inductive element (see fig.1, L1) and a first capacitive element (see fig.1, C1), and a transponder including a parallel oscillating circuit having a second inductive element (see fig.1, L2) and a second capacitive element (see fig.1, C2 and see Applicant's Background of The Invention page 2 lines 4-11).

The Applicant's admitted prior does not specifically disclose the first and second inductive elements and first and second capacitive elements such that a coupling coefficient between the series oscillating circuit and the parallel oscillating circuit decreases rapidly when a distance between the terminal and the transponder is greater than a particular distance.

Burdick teaches inductive elements and capacitive elements such that a coupling coefficient between oscillating circuit decreases rapidly when a distance between the terminal and the transponder is greater than a particular distance (see Burdick, column

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6 lines 12-21, in Burdick, "1-3 meters" reads on Applicant's "particular distance" and the signal strength will fall off in any distance less than 1 meter or greater than 3 meter).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Burdick into the system of the Applicant's admitted prior art so that user can be accommodated in a small physical area without interference (see Burdick, column 6 lines 14-15).

The combination of the Applicant's admitted prior art and Burdick does not specifically the first and second inductive elements and first and second capacitive elements are sized based on a particular distance.

Schneider teaches the first and second inductive elements and first and second capacitive elements (see column 3, lines 60-63) are sized based on a particular distance (see column 3, lines 55-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Schneider into the system of the Applicant's admitted prior art and Burdick in order to provide a contact-less card smart card system in which a transponder communicates using a defined protocol (see Schneider, column 2, lines 48-50).

Regarding claim 19, the combination of Burdick and the Applicant's admitted prior art teaches the particular distance is approximately 1-3 meters (see Burdick, column 6 lines 15-21). The combination of Burdick and the Applicant's admitted prior art does not specifically disclose the particular distance is approximately 1 centimeter. However, such distance range would have been obvious since the particular distance

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range could have been determined by the inventors' needs e.g., use a distance range which can minimize the interference with other users.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of the Applicant's admitted prior art, Burdick and Schneider as claimed, in order to provide another way of implementing the transponder.

Regarding claim 20, the combination of the Applicant's admitted prior art, Burdick and Schneider teaches the number of turns of an inductance of the parallel oscillating circuit of the transponder is 25 (see Burdick, column 40 line 52). The Applicant's admitted prior art and Burdick does not specifically disclose the first inductive element comprises a single turn. However, such single turn would have been obvious since the particular number of turns could have been determined by the inventors' needs e.g., use a number of turns which can optimize the transmission coverage area that also minimizes interference.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of the Applicant's admitted prior art, Burdick and Schneider as claimed, in order to provide another way of implementing the transponder.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being obvious over the Applicant's admitted prior art in view of Burdick et al (US 6,424,820) and further in view of Schneider et al (US 6,356,738) and DeMichele (US 5,084,699).



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Regarding claim 18, the combination of the Applicant's admitted prior art, Burdick and Schneider teaches the electromagnetic transponder of claim 17. The Applicant's admitted prior art, Burdick and Schneider does not specifically disclose a capacitive element of the parallel oscillating circuit is provided by a tray capacitance of an inductance of the parallel oscillating circuit.

DeMichele teaches a capacitive element of the parallel oscillating circuit is provided by a tray capacitance of an inductance of the parallel oscillating circuit (see column 9, lines 9-11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of DeMichele into the system of the Applicant's admitted prior art, Burdick and Schneider in order to provide a novel electromagnetic field transmission and detection system which can simultaneously transmit a high intensity magnetic field and detect a localized low intensity magnetic field (see DeMichele, column 20-25).

### ***Allowable Subject Matter***

8. Claims 21, 22, 33 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 21, 22, 33 and 34, the combination of the Applicant's admitted prior art, Burdick and Schneider teaches claims 14 and 17. The combination of the

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Applicant's admitted prior art, Burdick and Schneider fails to teach the claimed limitations of claims 21, 22, 33 and 34.

9. Claims 1-4, 6-9, 12, 13 and 23-32 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 1, 9, 23 and 30, are allowable over the prior art of record for the reasons as stated in the Office action dated 06/09/2004 (page 10).

Dependent claims 2-4, 6-8, 12, 13, 24-29, 31 and 32 are allowable for same reason.

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 10, 11, 14 and 16-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571) 272-7911. The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone


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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi H. Ly

UOLy  
03/29/05

  
**CHARLES APPIAH**  
**PRIMARY EXAMINER**